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EXTRAORDINARY

PART II—Section 3—Sub-section (1)

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MINISTRY OF TRANSPORT AND COMMUNICATIONS

(Department of Transport)

MERCHANT SHIPPING

New Delhi, the 30th December 1960

G.S.R. 1568.—In exercise of the powers conferred by section 175 read with section 457 of the Merchant Shipping Act, 1958 (44 of 1958), and in supersession of all previous rules and orders on the subject, the Central Government hereby makes the following rules the same having been previously published as required by sub-section (1) of section 175 of the said Act, namely:—

1. Short title, commencement and application.—(1) These rules may be called the Merchant Shipping (Crew Accommodation) Rules, 1960.

(2) They shall come into force on the 1st January, 1961.

(3) They shall apply to:—

- (a) every sea-going mechanically propelled ship of 200 tons gross and over for the time being registered in India, whether so registered before or after the date on which these rules come into force;
- (b) every such ship which, at any time after that date, is being constructed to the order of a person qualified to be the owner of an Indian ship and has not been registered in India;

not being a fishing vessel, a pleasure yacht, a ship belonging to a general lighthouse authority, or a ship being constructed for use as a fishing vessel or pleasure yacht, or for use by a general lighthouse authority.

2. Definitions.—(1) In these rules, unless the context otherwise requires:

- (a) "Act" means the Merchant Shipping Act, 1958;
- (b) "apprentice" includes a cadet and a midshipman;
- (c) "approved" means approved by the Central Government;
- (d) "chief officer" includes a first Mate and an only Mate;
- (e) "crew" means seamen and apprentices;
- (f) "petty officer" means a rating serving in a supervisory position or in a position of special responsibility who is classed as petty officer by collective agreement or custom;
- (g) "rating" means a member of the crew other than an officer;
- (h) "sanitary accommodation" means washing accommodation and accommodation containing water closets or urinals;
- (i) "Schedule" means a Schedule to these rules;
- (j) "sleeping room" does not include a hospital ward;

- (k) "surveyor" means a surveyor appointed under section 9 of the Act;
- (l) "tons" means gross tons;
- (m) "trunked mechanical ventilation system" means a system of ventilation complying with the specifications set forth in the First Schedule;
- (n) "washing accommodation" does not include—
 - (i) any sleeping room or hospital ward, whether or not provided with a washbasin, bath or shower; or
 - (ii) any room appropriated for use only as a laundry.

(2) Unless the context otherwise requires, no structure shall be deemed to be watertight, gastight, or oiltight for the purposes of these rules unless all openings in that structure, other than ventilation openings necessary for the admission of air from passageways to sanitary accommodation, laundries, drying rooms or galleys, are provided with means of closure which will enable such openings to be made watertight, gastight or oiltight, as the case may be.

3. Plans.—(1) Every person to whose order a ship to which these rules apply is being constructed shall cause a plan of the ship, on a scale not smaller than 1 in 100, to be submitted to the Principal Officer, Mercantile Marine Department of the place where it is intended to register the ship (hereafter in this rule referred to as the Principal Officer) on a day not later than the day on which the keel of the ship is laid, showing clearly the proposed arrangement of the crew accommodation in the ship and its proposed position in relation to other spaces therein,

(2) Every such person shall cause the following plans to be submitted to the Principal Officer on a day not later than the day on which the construction of any part of the crew accommodation is begun:—

- (a) plans of the proposed crew accommodation, on a scale not smaller than 1 in 50 in the case of a ship under 500 feet in length and not smaller than 1 in 100 in the case of any other ship, showing clearly the purpose for which each space therein is to be appropriated and the proposed disposition of the furnishing, fittings and obstructions therein; and
- (b) plans showing clearly the proposed arrangements for supplying water to the crew accommodation and for heating, lighting and ventilating the accommodation.

(3) The owner of every ship to which these rules apply shall submit or cause to be submitted to the Principal Officer, before any alteration or reconstruction is carried out in the crew accommodation thereof, plans on the scales and showing the information referred to in sub-rules (1) and (2), and relating to the crew accommodation as altered or reconstructed, as the case may be:

Provided that if the crew accommodation in any ship is altered or reconstructed at a place outside India in consequence of an emergency or an accident to the ship, such plans shall be submitted to the Principal Officer as soon as practicable.

4. Position of Crew Accommodation.—(1) In every ship to which these rules apply, the crew accommodation, other than store rooms, shall be wholly situated above the Summer Load line, if any, marked on the ship in accordance with the provisions of the rules made under section 311 of the Act. The Central Government may exempt from the requirement of this sub-rule—

- (a) any passenger ship;
- (b) any tug;
- (c) any cable ship;
- (d) any salvage ship;
- (e) any crane ship;
- (f) any dredger and any ship engaged in the conveyance of the spoil of dredging;
- (g) any other ship not being a ship engaged in the carriage of cargo,

If it is satisfied that compliance with such requirement is unreasonable or impracticable by reason of the size or intended service of the ship.

(2) In every ship to which these rules apply, the crew accommodation, other than store rooms, shall be situated amidships or aft. The Central Government

may exempt any ship from the requirement of this sub-rule to the extent that it is satisfied that compliance therewith is unreasonable or impracticable by reason of the size or intended service of the ship; provided that in ships of 500 tons or over, no part of the crew accommodation, other than store rooms, shall be forward of the collision bulkhead.

(3) Sleeping rooms forming part of the crew accommodation of a passenger ship to which these rules apply shall not be situated immediately beneath a working passageway.

5. Height of Crew Accommodation.—(1) In every ship to which these rules apply, the height of the crew accommodation measured from the top of the floor beams to the top of the crown beams shall be not less than the following:—

In ships of under 1,600 tons—7 feet.

In ships of 1,600 tons or over—7 feet 6 inches.

The Central Government may exempt any ship from the requirement of this sub-rule in respect of store rooms and sanitary accommodation.

(2) Every sleeping room forming part of the crew accommodation in a ship to which these rules apply shall be so constructed as to provide a clear headroom of at least 6 feet 3 inches at every point in the room which is available for free movement. The Central Government may exempt any ship of under 500 tons from the requirement of this sub-rule to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

6. Construction of Bulkheads and Panelling.—(1) In every ship to which these rules apply, all bulkheads enclosing or within any part of the crew accommodation shall be properly constructed of steel or other suitable material. If the bulkheads are exposed to the weather they shall be of watertight and gastight construction, and means of closure shall be provided for all openings in such bulkheads so as to enable them to be made weathertight.

(2) Any bulkhead which separates any part of the crew accommodation (other than a recreation deck space) from a space used as—

- (a) a permanent coal bunker;
- (b) an oil fuel bunker;
- (c) a cargo or machinery space;
- (d) a lamp room or paint room;
- (e) a store room not forming part of the crew accommodation (other than a dry provision store room);
- (f) a chain locker; or
- (g) a cofferdam;

shall be gastight, and shall be watertight where necessary to protect the crew accommodation.

(3) Any bulkhead which separates any part of the crew accommodation from a dry provision store room (whether or not such store room forms part of the crew accommodation) shall be gastight.

(4) Subject to the provisions of sub-rule (5) of rule 27, any bulkhead which separates any part of the crew accommodation from sanitary accommodation or from a laundry or drying room, galley or cold store room (whether or not such sanitary accommodation, laundry, drying room, galley or cold store room forms part of the crew accommodation) shall be gastight, and shall be watertight to such height as is necessary to prevent the passage of water into the adjoining space. In particular, any bulkhead separating sanitary accommodation from any other part of the crew accommodation shall, except in a doorway, be watertight to a height of at least 9 inches above the floor of the sanitary accommodation. Provided that the requirements of this sub-rule shall not apply to bulkheads separating—

- (a) a sanitary accommodation from another sanitary accommodation;
- (b) a laundry or drying room from another laundry or drying room;
- (c) a cold store room from another cold store room;
- (d) a galley from another galley or a pantry;
- (e) sanitary accommodation appropriated for the sole use of one person from a sleeping room from which it may be directly entered.

(5) Any inside panelling in the crew accommodation shall be constructed of plywood or other suitable material with a surface which can be easily kept clean. Neither bulkheads nor inside panelling shall be constructed with tongued and grooved boarding or in a manner or with material likely to harbour vermin.

7. Overhead Decks.—(1) In every ship to which these rules apply, being a ship constructed of steel or other metal, every deck which forms the crown of any part of the crew accommodation (in this rule referred to as an "overhead deck") and is exposed to the weather shall be constructed of steel or other metal. The Central Government may exempt any ship from the requirement of this sub-rule to the extent that it is satisfied that it is necessary to do so by reason of the intended service of the ship.

(2) The upper side of every such deck shall be sheathed with wood or with a material which complies with the requirements specified in the Second Schedule. Such sheathing shall be properly laid and, if it consists of wood, shall be properly caulked. The Central Government may exempt any ship from the requirements of this sub-rule to the extent that it is satisfied that the undersides of the overhead decks are insulated with a material (other than wood) which complies with the requirements specified in the Third Schedule, and which is so fitted as to avoid as far as possible absorption of water, condensation, transmission of noise and harbouring of dirt and vermin.

(3) Every wooden overhead deck shall be at least $2\frac{1}{2}$ inches thick and every wooden sheathing shall be at least $2\frac{1}{2}$ inches thick. The Central Government may exempt any ship from either of the requirements of this sub-rule to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

8. Flooring.—(1) In every ship to which these rules apply the decks which form the floors in the crew accommodation shall be properly constructed and shall have a surface which provides a good foothold and is capable of being easily kept clean. The floor covering shall be impervious to water and, if the deck is situated on the top of an oil tank, impervious to oil.

(2) Wooden decks which form the floors in the crew accommodation shall be at least $2\frac{1}{2}$ inches thick and shall be properly laid and caulked. The Central Government may exempt any ship from the requirements of this sub-rule, to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(3) The surface of metal decks which form the floors of the crew accommodation, not being floors in sanitary accommodation, galleys, store rooms or laundries, shall be covered with linoleum or wooden planking, or with a material which complies with the requirements specified in the Second Schedule. The joinings of such material with the side walls shall be rounded in a manner which will avoid crevices. Such linoleum, planking or material shall be properly laid.

(4) The floors of sanitary accommodation, galleys and laundries in the crew accommodation shall be covered with terrazzo, tiles, or other hard material which is impervious to liquids. The floor-covering shall be properly laid and shall provide a good foothold. The joinings of the floors with the side walls shall be rounded in a manner which will avoid crevices.

9. Protection from Weather, etc.—(1) In every ship to which these rules apply the crew accommodation and the means of access thereto and egress therefrom shall be so arranged and constructed and situated in such a position as to ensure—

- (a) the protection of the crew against injury to the greatest practicable extent;
- (b) the protection of the crew accommodation against the weather and the sea;
- (c) the insulation of the crew accommodation from heat and cold;
- (d) the protection of the crew accommodation against moisture due to condensation;
- (e) the exclusion from the crew accommodation of effluvia originating in other spaces in the ship; and
- (f) the exclusion from the crew accommodation, to the greatest practicable extent, of noise originating in other spaces in the ship.

- (2) Without prejudice to the generality of the foregoing sub-rule:—
- (a) Every opening from an open deck into the crew accommodation shall be protected against the weather and the sea.
 - (b) The crew accommodation shall be accessible at all times from the open deck.
 - (c) Access to sleeping rooms, mess rooms, recreation rooms and studies forming part of the crew accommodation shall be obtained from a passageway which shall be provided with a hinged door at any entrances from the open deck. The Central Government may exempt any ship from the requirement of this clause to the extent that it is satisfied that compliance therewith is unreasonable or impracticable by reason of the size or intended services of the ship.
 - (d) Bow hawse pipes shall not be situated in the crew accommodation. The Central Government may exempt any ship of under 400 tons from the requirement of this clause.
 - (e) Steam supply and exhaust pipes for steering gear, winches and similar equipment shall not pass through crew accommodation. Provided that, if in the case of any ship of 500 tons or over the Central Government is satisfied that alternative arrangements are unreasonable or impracticable in the circumstances, it may permit such pipes, if properly encased to pass through passageways forming part of the crew accommodation subject, in the case of supply pipes, to the following conditions:—
 - (i) the pipes shall be constructed of solid drawn steel or other suitable material;
 - (ii) the pipes shall be of a scantling sufficient to withstand the maximum pressure from the ship's boiler system;
 - (iii) all connections in the pipes shall be by faced flanges properly jointed; and
 - (iv) the pipes shall be fitted with adequate drainage arrangements.

The Central Government may exempt any ship of under 500 tons from the requirements of this clause if it is satisfied that adequate arrangements have been made to ensure the safety of the crew.

- (f) All steam pipes, hot water pipes and calorifiers in or serving the crew accommodation shall be efficiently lagged wherever lagging is necessary for the conservation of heat or the protection of the crew against injury or discomfort. All cold water pipes in the crew accommodation shall be efficiently lagged wherever lagging is necessary for the prevention of condensation.
- (g) Chain pipes, and ventilator trunks to cargo spaces or tanks, shall be made of steel or other suitable material and shall be gastight where they pass through any part of the crew accommodation.
- (h) Batteries for the operation of the ship's radio installation, if any, shall not be placed in any sleeping room provided for the crew, and precautions shall be taken which will ensure that fumes from such batteries cannot discharge into any part of the crew accommodation.
- (i) The bulkheads and the parts of the ship's side which enclose the crew accommodation shall be insulated in a manner which will prevent overheating of the accommodation, and shall be covered with protective covering which will prevent the condensation of moisture. The Central Government may exempt any ship from the requirements of this clause to the extent that it is satisfied that the crew accommodation is adequately protected by its position and ventilation against overheating and condensation.
- (j) Every bulkhead, casing and deck separating the crew accommodation from other spaces in the ship in which heat or cold may be generated shall be insulated in a manner which will prevent the crew accommodation being so affected by such heat or cold or by condensation as to prejudice the health or comfort of the crew.
- (k) Every ship for the time being regularly engaged on voyages in the Tropics or the Persian Gulf shall be provided with awnings which will cover:—
 - (i) all exposed decks and house-tops situated immediately above any part of the crew accommodation;

- (ii) all exposed sides of galleys situated on an open deck;
- (iii) such portion of the deck spaces provided for the recreation of the crew in compliance with sub-rule (6) of rule 21 as will provide a shaded area adequate in extent having regard to the number of persons in the crew and to any shade provided for such spaces by overhanging decks.

The awnings shall be supported by stanchions or by other suitable means.

- (l) There shall be no direct opening between the crew accommodation (other than recreation deck spaces) and any space used as a store room for engine room stores or deck department stores. The Central Government may exempt any ship of under 500 tons from the requirement of this clause to the extent that it is satisfied that compliance therewith is impracticable in the circumstances.
- (m) There shall be no direct opening between the crew accommodation (other than recreation deck spaces) and spaces used as:—
 - (i) permanent coal bunkers;
 - (ii) oil fuel bunkers;
 - (iii) cargo or machinery spaces;
 - (iv) lamp rooms or paint rooms;
 - (v) store rooms not forming part of the crew accommodation (other than store rooms for engine room or deck department stores);
 - (vi) chain lockers; or
 - (vii) cofferdams. Provided that there may be a direct opening between machinery spaces and sanitary accommodation and changing rooms provided for the sole use of officers and ratings of the engine room department.

The Central Government may exempt any ship from the requirement of this clause in so far as it relates to a direct opening between any passageway forming part of the crew accommodation and any of the aforesaid spaces.

- (n) Subject to the provisions of sub-rule (3) of rule 23, sub-rule (6) of rule 27 and sub-rule (16) of rule 31 there shall be no direct opening between the crew accommodation (other than recreation deck spaces or passageways) and any sanitary accommodation, laundry or drying room (whether or not such sanitary accommodation, laundry or drying room forms part of the crew accommodation). Provided that nothing in this clause shall prohibit direct openings between spaces forming part of sanitary accommodation, or between spaces appropriated for use as laundries or drying rooms.
- (o) Any part of the crew accommodation which is adjacent to any part (other than the crown) of a tank in which oil may be carried in bulk, shall be separated therefrom by a gastight steel division additional to the division which retains the oil. The Central Government may exempt any ship from the requirement of this clause if it is satisfied that the division which retains the oil is likely to remain oiltight under service conditions.
- (p) If any part of the crew accommodation is situated on a deck which forms the crown of a space in which oil may be carried in bulk, such deck shall be oiltight. No manholes or other openings to the oil tanks shall be situated in the crew accommodation.
- (q) If any part of the crew accommodation is situated on a deck forming the crown of a permanent coalbunker, such deck shall be gastight.
- (r) The means of access to and egress from every part of the crew accommodation shall be so situated that in the event of fire in any lamp room or paint room in the ship, access to and egress from the crew accommodation will not be impeded.

10. Heating.—(1) In every ship to which these rules apply, other than a ship employed or intended to be employed solely within the tropics or the Persian Gulf, all sleeping rooms, mess rooms, recreation rooms, sanitary accommodation, offices, studies and hospitals forming part of the crew accommodation shall be provided with a heating system which shall be permanently installed and capable of ensuring that when the ventilation system provided for such rooms or accommoda-

tion in compliance with these rules is working so as to furnish at least 15 cubic feet of fresh air per minute for each person whom the room or accommodation is designed to accommodate at one time and the temperature of the open air is 30°F, the temperature therein can be maintained at 67°F. Provided that the temperature within a water closet shall not be required to be maintained at more than 10°F above the ambient temperature in the open air. If the temperature within any water closet is capable of being so maintained by heat derived from an adjoining compartment, heating system shall not be required to be provided in that water closet.

The Central Government may exempt any ship of under 500 tons from the requirements of this sub-rule if it is satisfied that the crew accommodation is fitted with stoves which are properly installed and adequately guarded, or with other suitable means of heating.

(2) The permanent heating system required by the foregoing sub-rule shall be operated by steam, hot water or electricity or shall be a system supplying warm air.

(3) The heating equipment shall be so constructed, installed and, if necessary, shielded as to avoid the risk of fire and not to constitute a source of danger or discomfort to the crew. In particular, means shall be provided, unless the provision thereof is unreasonable or impracticable in the circumstances, by which without the use of a tool or key, the heat emitted by the radiator or other heating device fitted in any space can be turned on and off and varied. The heating equipment shall be so constructed that its operation is not affected by the use or non-use of any steering gear, deck machinery, calorifiers or cooking appliances in the ship.

(4) The heating system shall be in operation at all times when any members of the crew are living or working on board the ship and circumstances require its use. Provided that while the ship is in port the heating system shall not be required to be in operation if efficient temporary means of heating are provided for such parts of the crew accommodation as are in use.

11. Lighting.—(1) In every ship to which these rules apply every part of the crew accommodation, other than pantries, laundries, drying rooms, lockers and store rooms, shall be properly lighted by natural light. Provided that if in any space in a passenger ship it is impracticable to provide proper natural lighting, such lighting shall not be required if adequate electric lighting is always available in that space. The Central Government may exempt any ship from the requirement of this sub-rule in relation to the sanitary accommodation and passageways to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(2) The natural lighting of a sleeping room, mess room, recreation room or hospital ward shall be deemed to be proper for the purpose of this rule if it is sufficient to enable an ordinary newspaper to be read by a person of normal vision at any point in the room, being a point available for free movement, during day time and in clear weather.

(3) Every side scuttle in a sleeping room, mess room, smoking room or recreation room in the crew accommodation of a ship to which these rules apply shall be capable of being opened. Provided that this sub-rule shall not apply to any side scuttle, in a passenger ship which is required by any rule framed under the Act to be of a non-opening type.

(4) In every ship of 3,000 tons or over every such side scuttle shall be at least 12 inches in diameter. The Central Government may exempt any ship from the requirements of this sub-rule to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(5) In every ship to which these rules apply an electrical system shall be installed which is capable of providing adequate lighting in every part of the crew accommodation. The electric lights shall be so arranged as to give the maximum benefit to the crew, and in particular, an electric reading light shall be fitted at the head of each bed and shall be capable of being switched on and off from the bed. A lamp emitting at least 200 lumens shall be fitted in every such reading light in a sleeping room, and a lamp emitting at least 400 lumens shall be fitted in every such light in a hospital ward. An efficient alternative system of lighting source of electric power shall be always available for lighting the crew accommodation. The Central Government may exempt any ship of under 500

tons from the requirement of this sub-rule if it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances and that other suitable artificial lighting is provided in the crew accommodation.

(6) (a) In addition to any other lights required by these rules the spaces referred to in clauses (d) to (n) (both inclusive) shall be provided with the lighting therein specified.

(b) The electric lighting of the spaces referred to in clauses (d) to (n) (both inclusive) shall be deemed to be adequate for the purposes of these rules if, when the lamp and paintwork are new, the illumination in the horizontal plane when measured at the points and in the manner prescribed in clause (c) is steady and subject to a tolerance of 10 per cent is maintained at a value not less than that prescribed for every such space.

(c) The points at which illumination shall be measured shall be as follows:—

(i) where general measurement points are prescribed for the illumination of a space, then measurements shall be taken at every point midway between every 2 adjacent lamps and at every point midway between every lamp and any position on any boundary of this space. Provided always that where within any space a part of that space (being a part of that space available for free movement) is shaded from the direct rays of a lamp by a re-entrant angle formed in the boundary of the space, then the central point of the part of space so shaded shall also be a general measurement point; and

(ii) where particular measurement points are also prescribed for a space, then measurements shall in addition be taken at every such point.

In all cases, measurements shall be taken at a height of 2 feet 9 inches above the floor, except that in the case of passageways, companionways, and covered recreation deck spaces, measurements may be taken either at a height of 2 feet 9 inches above the floor or at floor level, provided that in the case of measurements taken at floor level, the reflection factor of the floor surface shall not be less than 40 per cent. Illumination of provision store rooms shall be measured when the rooms are empty.

(d) Sleeping Rooms and Day Rooms—

2 foot-candles immediately in front of any drawer, bookcase, clothes locker, wardrobe and toilet mirror.

5 foot-candles at any wash-basin.

6 foot-candles at any seat at a writing desk or table, and at not less than half the remaining seats in a sleeping room provided for the use of more than one person.

For the purpose of this clause, reading lights at the heads of the beds shall not be taken into account in determining the illumination of a space except in the case of a sleeping room provided for the use of one person only.

(e) Mess Rooms—

2 foot-candles at general measurement points.

5 foot-candles at any table and sink.

(f) Recreation and Smoking Rooms—

2 foot-candles at general measurement points.

5 foot-candles at the recreation tables.

6 foot-candles at any seat at a writing position at a desk or table and at not less than half the remaining seats.

(g) Hospital Wards—

2 foot-candles at general measurement points.

5 foot-candles at any wash-basin.

In addition to the electric reading lamp required to be provided at the head of each bed in accordance with sub-rule (5), at least one fixed lamp shall be installed. The portable electric lamp required to be provided by sub-rule (10) of rule 31 shall emit at least 600 lumens.

For the purpose of this clause, reading lights at the heads of beds shall not be taken into account in determining illumination except in the case of a hospital ward provided for the use of one person only.

(h) Offices and Studies—

2 foot-candles immediately in front of any drawer and bookcase.

8 foot-candles at every writing position at a desk or table.

(i) Sanitary Accommodation (including sanitary accommodation in hospitals).

Water Closets: 3 foot-candles in way of the pan.

Shower spaces: 2 foot-candles in the centre of the space.

Wash-Rooms and Bath-Rooms: 3 foot-candles at general measurement points.

5 foot-candles at any wash-basin or washing trough and at or near the head of any bath.

(j) Laundries—

3 foot-candles at general measurement points.

5 foot-candles at any washing trough.

(k) Drying Rooms—

2 foot-candles in the centre of the space.

(l) Galleys (including Bakeries and Pantries)—

6 foot-candles at working position.

The lamps shall be so disposed as to ensure that the food preparation tables, the range top, the serving tables, and the washing up sinks receive the maximum amount of light.

(m) Provision Store Rooms—

Dry Store Rooms.

2 foot-candles at general measurement points.

2 foot-candles immediately in front of shelving and any cupboard.

Cold Store Rooms: Half the standard prescribed for a dry store room.

(n) Passageways, Companionway and covered Recreation Deck Spaces—

2 foot-candles at general measurement points.

A lamp shall be placed at or near the head of each stairway or ladder or hatchway and at or near doors of any lockers provided for oilskins or working cloths.

12. Ventilation.—(1) In every ship to which these rules apply, the enclosed parts of the crew accommodation shall be ventilated by a system which will maintain the air therein in a state of purity adequate for the health and comfort of the crew. Such system shall be capable of being so controlled as to ensure a sufficiency of air movement under all conditions of weather and climate to which the ship is likely to be subjected during the voyages on which she is intended to be engaged and shall be additional to any side scuttles, skylights, companions, doors or other apertures not intended solely for ventilation.

(2) (a) Every enclosed space forming part of the crew accommodation of a ship to which these rules apply, being a space not ventilated by a trunked mechanical ventilation system, shall be provided with a natural system of inlet and exhaust ventilation. Every inlet ventilator forming part of such system being a ventilator situated in the open air shall be of a cowl or other equally efficient type and shall be so situated that, as far as is practicable, it is not screened from the wind in any direction. No such ventilator shall be situated directly over a doorway, stairway, exhaust opening or a bunk.

(b) The sectional area of every part of the inlet and exhaust system (other than a part serving a drying room or locker) shall be at least 6 square inches for each person for whose use at any one time the space is appropriated and shall not be less than 19 square inches in all at any point in the system. The effective area of the inlet and exhaust system serving each space shall be capable of being adjusted from fully open down to a minimum of 3 square inches for each person likely to use the space at any one time.

(3) Every enclosed space other than a cold store room forming part of the crew accommodation of a ship to which these rules apply, being a ship of 3,000 tons or over or a ship of under 3,000 tons regularly engaged on voyages confined to the areas within the tropics and the Persian Gulf shall be provided with a trunked mechanical ventilation system complying with the requirements specified in the First Schedule. Provided that such a system shall not be required in any galley which is situated on an open deck and exposed to the weather on the fore-end and the port and starboard sides. The Central Government may exempt any ship of under 500 tons from the requirement of this sub-rule. The Central Government may further exempt any ship from the requirement of this sub-rule in so far as it relates to the ventilation of a store room for the storage of dry provisions if it is satisfied that compliance with that requirement is unnecessary by reason of the position of the store room.

(4) In the crew accommodation of every ship to which these rules apply, being a ship not provided with a trunked mechanical ventilation system, an electric fan shall be fitted in every sleeping room, mess room, recreation room, study, office, galley and pantry. The Central Government may exempt any ship of under 500 tons from the requirement of this sub-rule.

(5) Power for the operation of the trunked mechanical ventilation system or fans, as the case may be, required by the foregoing sub-rules shall be available at all times when any members of the crew are on board the ship and circumstances require such system or fans to be used.

(6) The following spare gear shall be provided for each size of electric motor employed to operate a trunked mechanical ventilation system in the crew accommodation of a ship to which these rules apply:—

For direct current motors—

- 1 armature
- 1 field coil
- 1 set of carbon brushes
- 1 set of bearings
- 1 brush holder.

For alternating current motors—

- 1 set of stator windings complete with insulation pieces.
- 1 set of bearings.

The spare gear shall be properly packed for storage.

13. Drainage.—(1) In every ship to which these rules apply, efficient drainage by pipes or channels shall be provided for every part of the crew accommodation situated on an open deck wherever such drainage is necessary for clearing water shipped from the sea.

(2) There shall be no drainage from any source (not being sanitary accommodation) into the sanitary accommodation forming part of the crew accommodation.

(3) Every space appropriated for use as sanitary accommodation shall be served by one or more scuppers which do not serve any space other than sanitary accommodation. The scuppers shall be at least 2 inches in diameter and shall be situated wherever water is likely to collect on the floor of the space. Provided that no scupper shall be required in washing accommodation appropriated for the sole use of one person.

14. Painting etc.—(1) In every ship to which these rules apply, the interior sides and ceilings of every part of the crew accommodation shall be covered with enamel paint or other suitable material. The paint, enamel or other material shall be of good quality and white or light in colour.

(2) Lime wash or paint containing nitro-cellulose shall not be applied to the crew accommodation.

(3) The wooden parts of the furniture and fittings in the crew accommodation shall be finished externally with paint, varnish, polish or by other suitable means.

(4) All paints, varnish, polish and other finishes in the crew accommodation shall be capable of being easily kept clean and shall be maintained in good condition.

15. Marking.—(1) Every sleeping room forming part of the crew accommodation of a ship to which these rules apply shall be marked inside the room with the marking specified in Part I of the Fourth Schedule.

(2) Every space other than a sleeping room or an open deck forming part of the crew accommodation of such a ship shall be marked either inside the space or on or over the door to such space with whichever of the markings specified in Part II of the Fourth Schedule is appropriate in the circumstances.

(3) All markings required by the foregoing provisions of this rule shall be in clear characters and in a really visible position on the ship's structure. The markings shall be cut into the structure or otherwise marked in an equally permanent manner.

(4) No space forming part of the crew accommodation of a ship to which these rules apply shall be marked whether inside or outside with any marking which may be taken to indicate that the space is appropriated for use by persons differing in number or description from the persons for whose use the space has been certified by a surveyor.

(5) If a place is used by seamen, the marking should be "Certified to accommodate _____ Seamen".

16. Sleeping Rooms.—(1) In every ship to which these rules apply unless the circumstances are such that no members of the crew are required to sleep on board, sleeping room shall be provided for the crew in accordance with the following provisions of this rule.

(2) (a) Each of the following classes of persons shall be provided with sleeping rooms separate from those provided for the other classes.

- (i) Officers.
- (ii) Petty Officers.
- (iii) Apprentices.
- (iv) Ratings of the deck department other than petty officers.
- (v) Ratings of the engine room department other than petty officers.
- (vi) Ratings of catering department other than petty officers.

(b) Every watch of ratings shall be provided with sleeping rooms separate from those of other watches. Day men shall be provided with sleeping rooms separate from those of watch keepers.

The Central Government may exempt any ship to the extent that it is satisfied that compliance with the said requirement is unreasonable or impracticable by reason of the size of the ship from the requirement of this sub-rule.

(3) The maximum number of persons accommodated in sleeping rooms shall be as follows:—

- (a) Officers in charge of a department, navigating and engineer officers in charge of a watch and first or only radio officers:—1 person per room.
- (b) **Other officers.**—Wherever practicable 1 person per room and in no event, more than 2 persons per room.
- (c) **Apprentices.**—Wherever practicable not more than 3 persons per room and in no event, more than 4 persons per room.
- (d) Chief or only steward and chief or only cook, in either case in a ship of 3,000 tons or over regularly employed otherwise than as a home trade ship.—1 person per room.
- (e) **Petty officers not being persons referred to in clause (d).**—Wherever practicable, 1 person per room and in no event, more than 2 persons per room.
- (f) **Other ratings.**—Wherever practicable, 2 or 3 persons per room and in no event, more than 4 persons per room; provided that in any passenger ship the Central Government may permit more than 4, but not more than 10, such ratings to be accommodated in one room if it is satisfied after consultation with the owner of the ship or with such organisation or organisations in India as it may consider to be most representative of employers of seamen and of seamen that the comfort of those ratings will thereby be increased.

The Central Government may exempt any ship of under 400 tons from the requirements of clauses (a) and (b) of this sub-rule.

(4) (a) Subject to the provisions of clauses (b) and (c) of this sub-rule, the minimum floor area provided for each person in a sleeping room forming part of the crew accommodation of a ship to which these rules apply shall be as follows:—

	Square feet
In ships of under 400 tons	.. 15
In ships of 400 tons or over but under 800 tons	.. 20
In ships of 800 tons or over but under 3,000 tons	.. 25
In ships of 3,000 tons or over	.. 30

(b) Subject to the provisions of clause (c) of this sub-rule the minimum floor area provided in a sleeping room in a passenger ship shall be 24 sq. feet per person if more than 4 ratings are accommodated in that room.

(c) The Central Government may permit in the case of ships which employ substantially larger numbers of seamen than would otherwise be employed, a minimum floor area for each rating in a sleeping room as follows:—

	Square feet
In ships of under 400 tons	.. 14
In ships of 400 tons or over but under 3,000 tons	.. 18
In ships of 3,000 tons or over	.. 20

Provided that the total floor area of the sleeping rooms shall not be less than that required by clause (a) of this sub-rule.

(d) In determining the floor area of a room for the purpose of this sub-rule, spaces occupied by berths, lockers, seats or chests of drawers shall be taken into account and spaces which by reason of their small size or irregular shape cannot accommodate furniture and do not contribute to the area available for free movement shall not be taken into account.

17. **Beds.**—(1) Every sleeping room in the crew accommodation of a ship to which these rules apply shall be fitted with a bed for each person accommodated in the room.

(2) The frame work of each bed and the lee-boards or lee-rails thereof, if any, shall be constructed of metal or other material which is hard and smooth and unlikely to become corroded. The frame work shall be so made as not to be likely to harbour vermin. In particular, if the bed is constructed with tubular frames, the frames shall be completely sealed and without perforations.

(3) There shall be unobstructed access to at least one side of each bed and in particular, if the adjacent sides of two beds in the same room are parallel to each other or when projected make an angle of less than 90° with each other, the distance between those sides at any point shall not be less than 2 feet 8 inches if both beds are in single tier or 3 feet in any other case.

(4) Where beds abut upon each other they shall be separated by screens made of wood or other suitable material.

(5) No bed shall be placed:—

- (a) Within 4 inches of a ventilation trunk which may be used for circulating hot air; or
- (b) Within 2 inches of a bulkhead or the ship's side, unless the bed is so supported and the room so constructed as to avoid harbouring dirt and vermin in or near the bed, to enable the bedding to be kept clean and dry and to minimise the soiling of paint-work in way of the beds.

(6) Bed shall not be arranged in tiers of more than two.

(7) Beds placed along the ship's side shall be in single tier, except in a room in which there is no side scuttle. The Central Government may exempt any ship from the requirements of this sub-rule, to the extent that it is satisfied that the beds in the sleeping room are clear of side scuttles and that the comfort of the crew will thereby be increased.

(8) (a) No bed shall be less than 1 foot from the floor of the room measured from the bottom of the mattress referred to in sub-rule (10).

(b) The upper bed in a double tier shall be at least 2 feet 6 inches below the lower side of the deck head beams or other obstructions measured from the bottom of the mattress.

The bottom of the mattress in the lower bed shall be at least 3 feet below the bottom of the mattress in the upper bed if the height of the sleeping room is 7 feet 6 inches or more and at least 2 feet 9 inches below the bottom of the mattress in the upper bed if the height of the sleeping room is less than 7 feet 6 inches. For the purposes of this sub-rule the height of the room shall be measured from the top of the floor beams to the top of the crown beams.

(c) The Central Government may exempt:

- (i) any ship under 500 tons from any of the requirements of this sub-rule;
- (ii) any ship from the requirements of clause (b) of this sub-rule to the extent that it is satisfied that it is unreasonable or impracticable in the circumstances to remove obstructions above the beds in the crew accommodation of that ship.

(9) (a) Subject to the provisions of clause (b) of this sub-rule, the size of the beds provided for the crew shall be at least 6 feet 3 inches by 2 feet 3 inches the measurements being taken inside the lee-boards or lee-rails, if any, and at right angles to each other.

(b) The size of the beds provided in a ship of 3,000 tons or over for the Chief Officer and for the Chief and Second Engineers shall be at least 6 feet 3 inches by 2 feet 9 inches in a passenger ship and at least 6 feet 3 inches by 3 feet 6 inches in any other ship, the measurements in each case being taken inside the lee-boards or lee-rails, if any, at right angles to each other.

(10) Every bed provided for a member of the crew shall be fitted with a spring bottom or spring under-mattress and with a mattress made of material which will resist damp and is unlikely to harbour vermin. A bottom of wood, canvas, or other dust-proof material shall be fitted to every bed which is fitted above another bed.

18. Furniture and fittings in sleeping rooms.—(1) In every ship to which these rules apply, every sleeping room for ratings other than petty officers shall be provided with the following equipment:—

(a) for each person accommodated in the room:—

- (i) One drawer having a capacity of at least 2 cubic feet;
- (ii) One clothes locker or wardrobe, in either case at least 5 feet 6 inches in height and 315 Sq. inches in internal sectional area, the locker or wardrobe shall be fitted with a shelf not less than 9 inches and not more than 15 inches below its top and with fittings on which the clothes may be hung;
- (iii) at least one coat hook in addition to any coat hooks fitted in a locker or wardrobe;

(b) A table of fixed or drop leaf type or a desk, or a sliding leaf or top fitted to a chest of drawers;

(c) Comfortable seats sufficient to accommodate at one time all the persons accommodated in the room. Such seats shall be provided in addition to the beds in the room. The Central Government may exempt any passenger ship from the requirements of this clause to the extent that it is satisfied that a lesser number of seats is adequate in the circumstances;

(d) A mirror suitable for toilet purposes;

(e) A cabinet suitable for containing toilet requisites;

(f) A book rack;

(g) A runner of jute, coir or other suitable material at one side of each bed or tier of beds, as the case may be;

(h) A curtain fitted to each bed, unless the room accommodates only one person; and

- (1) A curtain fitted to each side scuttle, unless the side scuttle is fitted with blinds or jalousies.
- (2) Sub-rule (1) shall apply to sleeping rooms for petty officers as it applies to sleeping rooms for other ratings, subject to the following modifications and additions:—

(a) For each person accommodated in the room a second drawer having a capacity of at least 2 cubic feet shall be provided in addition to the drawer referred to in clause (a) of sub-rule (1).

(b) The clothes lockers or wardrobes provided shall be made of hardwood.

(c) Each room shall be provided with:—

(i) a rack suitable for holding:—

(a) one drinking-water bottle; and

(b) one tumbler for each person accommodated in the room.

The rack may be fitted inside the cabinet for toilet requisites. Provided that a rack for holding a drinking-water bottle shall not be required in any room in which a supply of drinking-water is laid on;

(ii) a wash-basin of vitreous china or other equally hygienic and durable material, which shall be fitted with an efficient and hygienic discharge overside or to an enclosed tank with a suction pipe served by a mechanically operated pump; provided that a wash-basin shall not be required to be fitted in a sleeping room for petty officers if washing accommodation is readily accessible from the sleeping room.

(3) In every sleeping room in which more than one petty officer or other rating is accommodated, every drawer, locker and wardrobe shall be fitted with a secure lock or hasp for a padlock. In every sleeping room in which only one petty officer or other rating is accommodated the locker or wardrobe shall be fitted with such a lock or hasp.

(4) Subject to the provisions of sub-rule (5) every sleeping room for officers shall be provided with the following equipment:—

(a) For each officer accommodated in the room—

(i) at least three drawers with a total capacity of 10 cubic feet or as near thereto as is practicable in the circumstances;

(ii) a wardrobe at least 5 feet 6 inches in height and 460 square inches in internal sectional area;

(iii) at least two coat hooks, in addition to any coat hooks fitted in the wardrobe;

(b) A writing desk fitted, if practicable, with drawers additional to the aforesaid drawers;

(c) A chair with arm rests;

(d) A settee at least 6 feet in length or as near thereto as may be practicable in the circumstances, provided that the Central Government may permit the settee to be dispensed with—

(i) if it is satisfied that a settee of adequate dimensions cannot be placed in the room without interfering with the comfort of the occupants; or

(ii) in the case of a room which accommodates only one officer, if the Central Government has consulted such organisations as appears to it to be representative of the class of officer concerned and is satisfied that a fully upholstered easy chair with closed arms is provided in the room;

(e) A mirror suitable for toilet purposes;

(f) A cabinet suitable for containing toilet requisites;

(g) A rack suitable for holding—

(i) One drinking-water bottle, and

(ii) one tumbler for each officer accommodated in the room.

The rack may be fitted inside the cabinet for toilet requisites. Provided that a rack for holding a drinking-water bottle shall not be required in any room in which a supply of drinking-water is laid on;

(h) A wash basin of vitreous china or other equally hygienic and durable material, which shall be fitted with an efficient and hygienic discharge overside or to an enclosed tank with a suction pipe served by a mechanically operated pump; provided that a wash-basin shall not be required to be fitted in a sleeping room if washing accommodation is readily accessible therefrom;

(i) A splash plate or other means of protection for the wall above the wash-basin, if any;

(j) A carpet runner of wool or similar material;

(k) Curtains fitted to each bed, unless the room accommodates only one officer;

(l) Curtains fitted to each side scuttle, unless the side scuttle is fitted with blinds or jalousies;

(m) A book case in any room which accommodates a Chief Officer, Chief Engineer or Second Engineer, or in the case of a passenger ship a First Radio Officer; and

(n) A book case or book rack in rooms which accommodate other officers.

The Central Government may exempt any ship of under 400 tons from any of the requirements of clauses (a) and (b) and clauses (k) to (n) inclusive, of this sub-rule to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(6) Any of the equipment referred to in clauses (b), (c), (d), (m) and (n) of sub-rule (4) of this rule may be provided in a day room available for the sole use of the officers concerned, instead of in their sleeping room. Any of the equipment referred to in clauses (e) to (i) inclusive, of the said sub-rule may be provided in washing accommodation appropriated for the exclusive use of one officer instead of in the sleeping room of that officer.

(6) Sleeping rooms for apprentices shall, so far as is reasonable and practicable in the circumstances, be provided with the equipment (other than a book case) referred to in sub-rule (4) of this rule. Provided that any of the equipment referred to in clauses (b), (c) and (d) of the said sub-rule may be provided in a study for the sole use of the apprentices instead of in their sleeping rooms.

(7) Subject to the foregoing provisions of this rule all lockers, wardrobes, tables, desks, the un-upholstered parts of chairs and settees and similar furnishings provided in compliance with this rule shall be made of polished hardwood, rustproof metal or other smooth and impervious material not likely to crack, warp or become corroded. All furniture provided in sleeping rooms shall be so made as not to be likely to harbour vermin.

19. Mess Rooms.—(1) In every ship to which these rules apply, unless the circumstances are such that no members of the crew are required to mess on board, mess rooms shall be provided for the crew and shall be of such dimensions as will be sufficient to accommodate the greatest number of persons likely to use them at any one time.

(2) No mess room shall be combined with a sleeping room. The Central Government may exempt any ship of under 300 tons from the provisions of this sub-rule if it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(3) In every ship of 500 tons or over, the mess rooms provided for ratings shall be separate from those provided for the Master of the ship or for officers.

(4) In every ship of 1,000 tons or over, a single mess room shall be provided for all officers in the ship. Provided that the officers may be accommodated in separate mess rooms if their sleeping rooms are in widely separate portions of the ship.

(5) In every ship of 1,000 tons or over, each of the following classes of ratings shall be provided with mess rooms separate from those provided for the other classes:—

(a) petty officers of the deck department;

(b) petty officers of the engine room department;

(c) other ratings of the deck department;

(d) other ratings of the engine room department.

Subject to the provisions of sub-rule (1), the Central Government may permit the provision in any ship of combined mess rooms as follows:—

- (i) for petty officers of the deck and engine room departments;
- (ii) for petty officers and other ratings of the same department;
- (iii) for all ratings (other than petty officers) of the deck and engine room departments.

Subject as aforesaid, the Central Government may further permit the provision in any ship of a single mess room for all petty officers and other ratings of all departments, if it is satisfied that such an arrangement is preferred either by the owner of the ship or by an organisation which appears to the Central Government to be most representative of owners of Indian ships, and by an organisation which appears to it to be most representative of the seamen.

(6) In every ship of 3,000 tons or over with a catering department of more than 7 persons mess room shall be provided for ratings of the catering department which shall be separate from those provided for ratings of other departments, unless the Central Government permits a combined mess room for petty officers and other ratings of all departments in accordance with the provisions of sub-rule (5).

If in any other ship a separate mess room is not provided for ratings of the catering department, messing accommodation shall be provided for them in mess rooms provided for other ratings.

(7) Apprentices shall be provided with messing accommodation in the officers' mess room.

(8) The Central Government may exempt any passenger ship from the requirements of this rule to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

20. Furniture and Fittings in Mess Rooms.—(1) Every mess room forming part of the crew accommodation in a ship to which these rules apply shall be provided with sufficient tables to allow a space of at least 20 inches measured along the edge of a table, for each person likely to use the room at any one time. Each table shall be at least 24 inches wide if seats are provided on both sides of the table, and at least 15 inches wide if seats are provided only on one side of the table. The table shall be of such size and so situated as to be readily accessible.

(2) Single chairs shall be provided in the mess room for each person using the room at any one time. Such chairs shall be fitted with arm rests unless chairs with arm rests are available in a recreation room for the persons using the mess room. Provided that settees may be substituted for chairs adjacent to a bulkhead or the ship's side. Such settees shall be at least 15 inches wide and shall be fitted with upholstered or padded seats covered with material impervious to dirt and moisture and shall be provided with comfortably shaped backs. If the mess is appropriated for use by officers or petty officers, whether or not together with other ratings, the backs of the settees shall also be padded or upholstered and shall be covered with material impervious to dirt and moisture.

(3) Every mess room provided for persons who do not provide their own food shall be fitted with either:—

- (a) a storage locker or rack in either case capable of holding sufficient mess utensils for those persons, or
- (b) a storage locker at least 15 inches by 15 inches by 12 inches in size for each of those persons.

Every mess room provided for persons who provide their own food shall be fitted with a storage locker for each person which shall be of sufficient size to be capable of containing his mess utensils together with a supply of food sufficient for him for at least 7 days. All storage lockers provided in compliance with this sub-rule shall be adequately ventilated, and all storage lockers provided for one person shall be fitted with a lock or hasp for a padlock, and shall be so fixed as to clear the floor by at least 1 foot.

Provided that the lockers or racks may be fitted in a pantry, store room or other suitable place outside a mess room and readily accessible therefrom. No lockers or racks, being lockers or racks intended to contain food, shall be fitted in a sleeping room, not being a sleeping room combined with a mess room.

(4) A dresser, hot-press, sink and boiler or other means from which boiling drinking water shall always be available shall be fitted in each mess room, unless such equipment is fitted in a pantry readily accessible from the mess room or, in the case of a ship of under 1,000 tons, in a galley. Such equipment shall be adequate in size for the number of persons likely to use the room at any one time. If in the case of a mess room provided for officers or petty officers the dresser is fitted in a pantry, a sideboard shall be provided in the mess room. A supply of fresh water shall be laid on to the sink and boiler. The Central Government may exempt:—

- (a) any ship of under 1,000 tons from the requirement of a hot-press;
- (b) any ship of under 500 tons from any of the requirements of this sub-rule.

(5) All tables, lockers, dressers and un-upholstered parts of chairs and settees in the mess room shall be made of polished hardwood, rustproof metal or other smooth and impervious material not likely to crack, warp or become corroded. All furniture provided in the mess room shall be so made as not to be likely to harbour vermin.

(6) The Central Government may exempt any passenger ship from the requirements of this rule to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

21. Recreation Spaces and Studies.—(1) In every ship to which these rules apply, being a ship of 3,000 tons or over employed otherwise than on a home trade voyage, a smoking room shall be provided for the recreation of the officers, and shall not be combined with a mess room. The smoking room shall be provided with tables each having a top approximately 4 square feet in area and with tub chairs or easy chairs sufficient to accommodate at one time at least one-third of the number of officers for whose use the room is provided and a book case.

(2) In every ship to which these rules apply, being a home trade ship of 300 tons or over or a ship of under 3,000 tons regularly employed otherwise than as a home trade ship, the mess room provided for the officers shall be available and furnished for use as a smoking room, unless a separate smoking room is provided for their use.

(3) In every ship to which these rules apply, recreation accommodation shall be provided in a mess room or elsewhere for ratings and shall be conveniently situated and appropriately furnished. Where such accommodation is provided elsewhere than in a mess room, the seating provided shall be sufficient to accommodate at one time at least one-third of the number of ratings for whom that accommodation is provided.

(4) If more than two apprentices are accommodated in one sleeping room in a ship to which these rules apply, a separate room shall be provided in the ship for their use as a study, unless another suitable place is available to them for purposes of study.

(5) In every ship to which these rules apply, being a ship of 500 tons or over, a book case shall be provided for and shall be accessible to all members of the crew.

(6) In every ship to which these rules apply, space shall be provided on an open deck for the use of the crew for recreational purposes. The space shall be adequate in area (in so far as the size of the ship allows) having regard to the number of persons in the crew.

22. Office Accommodation.—In every ship to which these rules apply, being a ship of 3,000 tons or over, two separate rooms shall be provided for use as offices and shall be furnished for that purpose. One of such rooms shall be appropriated for use by the Chief Officer, or the officers of the deck department, and the other for use by the Chief Engineer or for the officers of the engine room department. The office accommodation shall be in a room not used for any other purpose except study. Provided that an office appropriated solely for use by an individual officer may be combined with the day room of that officer.

23. Washing Accommodation.—(1) In every ship to which these rules apply, each of the following classes of persons shall be provided with washing accommodation separate from that provided for the other classes:—

- (a) officers and apprentices;
- (b) petty officers;
- (c) ratings other than petty officers.

Provided that the Central Government may, in relation to any ship, permit any combination of the foregoing classes to be treated as one class for the purposes of this rule, if it is satisfied that the circumstances so require.

(2) The washing accommodation shall be situated close to the sleeping accommodation of the persons for whose use it is appropriated. Provided that part of the washing accommodation for ratings of the engine room department may be adjacent to the engine room and stokehold.

(3) Access to washing accommodation shall not be directly obtained from a mess room or a sleeping room and shall wherever reasonable and practicable in the circumstances be obtained from a passageway. Provided that access to washing accommodation may be obtained directly from not more than 2 sleeping rooms accommodating not more than 4 persons in all, if the washing accommodation is appropriated for use solely by the person or persons accommodated in those sleeping rooms.

(4) The following equipment shall be provided in the washing accommodation for each class of persons referred to in sub-rule (1):—

One bath or shower for every 8 persons;

one wash-basin for every 6 persons; and

one mirror suitable for toilet purposes for every 6 persons,

and each of such classes shall be provided with at least one bath or shower and at least one wash-basin. One additional bath or shower shall be provided for any of such classes in which the total number of persons exceeds by 4 or more a multiple of 8, and one additional wash-basin shall be provided for any of such classes in which the number of persons exceeds by 3 or more a multiple of 6. For the purposes of this sub-rule:—

- (a) a bath and shower combined shall be deemed to be only a bath;
- (b) no account shall be taken, in determining the number of baths and showers required of—
 - (i) any private bath or shower; or
 - (ii) the persons for whose use a private bath or shower is appropriated;
- (c) no account shall be taken, in determining the number of wash-basins required, of—
 - (i) any private wash-basin; or
 - (ii) the person for whose use a private wash-basin is appropriated;
- (d) a bath, shower or wash-basin shall be deemed to be private if it is appropriated for the exclusive use of not more than four persons.

The Central Government may exempt from any of the requirements of this sub-rule—

- (i) any ship in which the crew number more than 100;
- (ii) any passenger ship engaged solely on voyages which are normally of less than 4 hours' duration.

(5) The wash basins shall be made of vitreous china or other material having a smooth and impervious surface not likely to crack, flake or become corroded. Every wash-basin provided in a passenger ship, being a basin fitted with hot and cold fresh-water taps, shall have a capacity of at least 1 gallon. Every other wash-basin provided in compliance with the rules shall have a capacity of at least 1½ gallons. The capacity of wash-basins shall be measured for the purpose of this sub-rule to a level at least 1½ inches below the rim of the bowl.

(6) Every bath shall be at least 4 feet 5 inches in internal length unless it is combined with a shower. Every bath shall be made of vitreous enamelled iron, or other material having a smooth and impervious surface not likely to crack, flake or become corroded. The floor area of every shower space shall be at least 6½ square feet and each side of the space shall be at least 2 feet 6 inches long.

(7) Baths and showers provided for any class of persons shall be situated in or adjacent to a room containing wash-basins and provided for that class of persons. Screening shall be provided to ensure privacy for any bath or shower which is in the same room as any wash-basin or any other bath or shower unless the room is appropriated for the sole use of one person. The screening shall be made of robust

and opaque material, and shall be rigid on at least three sides of every bath and shower space. The screening shall, wherever reasonable and practicable in the circumstances, enclose sufficient space to permit a person to dress and undress in comfort therein.

(8) Every wash-basin, bath and shower shall be fitted with an efficient and hygienic discharge system and in particular, the waste pipes shall be fitted in a manner which will minimise the risk of obstruction and facilitate cleaning. Every shower space shall be provided with a handrail, a kerb and individual drainage. Every bath and shower space shall be provided with a grating or mat.

(9) Spring-loaded draw-off taps for hot and cold fresh water shall be fitted on a wall in every wash room provided for ratings, unless taps for hot and cold fresh-water are fitted to each wash-basin in that room. Draw-off taps for cold salt water shall be fitted in every such wash-room unless there are other adequate means of washing down the room. The Central Government may exempt any ship of under 500 tons from the requirements of this sub-rule relating to hot water taps to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(10) Nothing in this rule shall apply to the washing accommodation forming part of a permanent hospital, and for the purposes of sub-rule (4) thereof no account shall be taken of any wash-basin, bath or shower fitted in a permanent hospital.

24. Supply of water to washing accommodation.—(1) In every ship to which these rules apply there shall be available a supply of fresh water sufficient for the wash-basins, baths and showers fitted in compliance with these rules. The supply shall be provided from tanks of a capacity of at least 10 gallons for each member of the crew for each day likely to elapse between successive replenishments of the water or by other equally efficient means. If service tanks are fitted for that purpose they shall be directly connected with the ship's main washing water or drinking water storage tanks. In ships of 1,000 tons or over any pumping necessary for the supply of fresh water shall be by mechanical power.

(2) Hot and cold fresh water shall be laid on to all wash basins, baths and showers fitted in compliance with these rules: Provided that—

- (a) in the case of a bath and shower combined, hot and cold fresh water shall be required to be laid on only to the bath or the shower; and
- (b) hot and cold fresh water shall not be required to be laid on to wash-basins provided for the sole use of ratings if it is laid on to spring-loaded draw-off taps in the same room in accordance with sub-rule (9) of rule 23.

Cold fresh water shall be laid on to any wash-basins which are additional to those required by these rules and are fitted in sleeping rooms.

(3) The hot fresh water shall be at a constant temperature of at least 130°F. and shall be supplied by thermostatically controlled calorifiers or by other equally safe and efficient means. Every shower bath shall be provided with an anti-scalding mixing valve which shall be adjusted so that the temperature of the shower-water (whether salt or fresh) can be varied by the person using a shower over the range of temperatures between the ambient temperature and a temperature of between 95°F. and 105°F.

(4) The Central Government may exempt any ship of under 500 tons from the requirements of this rule relating to the supply of hot water to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

25. Supply of Drinking Water.—(1) In every ship to which these rules apply, a supply of drinking water shall be provided in the crew accommodation from tanks of an adequate capacity for the purpose having regard to the number of persons in the crew and the time likely to elapse between successive replenishments of the water, or by other equally efficient means. If service tanks are fitted for that purpose they shall be directly connected with the ship's main drinking water storage tanks. In ships of 3,000 tons or over, any pumping necessary for the supply of drinking water in the crew accommodation shall be by mechanical power.

(2) Cold drinking water shall be laid on to taps in the galleys and pantries, and in the mess rooms provided for those members of the crew for whose use and service pantries are not provided.

(3) In every ship to which these rules apply being a ship of 1,000 tons or over means shall be provided whereby the crew shall obtain access to drinking water which has been cooled by passing through a cooling-tank or by other suitable means.

26. Laundry Facilities, etc.—(1) In every ship to which these rules apply, being a ship of 500 tons or over, washing troughs or other suitable facilities shall be provided to enable the crew to wash their clothes, and shall be adequate in size and sufficient in number for that purpose. Such troughs shall be made of or coated with hygienic and durable material having a smooth and impervious surface not likely to crack, flake or become corroded. The troughs or other facilities shall be situated in a room appropriated for use only as a laundry: Provided that the troughs or other facilities may be situated in the crew's washing accommodation if the provision of a separate laundry is unreasonable or impracticable in the circumstances. The troughs or other facilities shall be provided with an adequate supply of hot and cold fresh water, and shall be so arranged as to discharge overboard or into an enclosed tank served by a mechanically operated suction pump.

(2) In every ship to which these rules apply, rooms for drying the crew's clothes shall be provided and shall be separate from sleeping rooms, mess rooms, recreation rooms, offices, store rooms; galleys; pantries and hospitals and shall be fitted with racks or rods with sufficient space having regard to the number of persons in the crew and the duration of the voyages on which the ship is intended to be engaged. The heating of such rooms shall be capable of being controlled independently of the heating of any other space in the ship. The exhaust ventilation of such rooms shall be independent of the ventilation of all other spaces unless it is provided by a trunked mechanical ventilation system: Provided that in ships of under 500 tons drying cabinets or other suitable facilities may be substituted for a drying room.

(3) In every ship to which these rules apply, adequately ventilated compartments or lockers shall be provided for hanging oilskins and working clothes used by the crew. Separate compartments or lockers shall be provided for officers and ratings. The compartments or lockers shall be situated outside the sleeping rooms of the crew in a position readily accessible therefrom. The Central Government may exempt any ship of under 500 tons from any of the requirements of this sub-rule.

27. Water Closets.—(1) In every ship to which these rules apply, each of the following classes of persons shall be provided with water closets separate from those provided for the other classes:—

- (a) officers and apprentices;
- (b) petty officers;
- (c) ratings other than petty officers:

Provided that the Central Government may, in relation to any ship, permit any combination of the foregoing classes to be treated as one class for the purposes of this rule if it is satisfied that the circumstances so require.

(2) (a) One water closet shall be provided for every 8 persons in each of the classes as aforesaid and each of such classes shall be provided with at least one water closet. One additional water closet shall be provided for any of such classes in which the total number of persons exceeds by 4 or more a multiple of 8:

Provided that—

- (i) in determining the number of water closets required by this clause no account shall be taken of—
 - (a) any private water closet; or
 - (b) the persons for whose use a private water closet is appropriated.
- (ii) if the number of persons in any class exceeds 100, the number of water closets provided for that class shall be the greater of the following:—
 - (a) 13, or
 - (b) 10, together with 4 per cent of the number of persons, in excess of 100, calculated to the next following whole number.

For the purpose of this clause a water closet shall be deemed to be private if it is appropriated for the sole use of not more than 4 persons.

The Central Government may exempt from the requirements of this clause any passenger ship engaged solely in voyages the normal duration of which does not exceed 4 hours.

(b) In addition to the water closets required by clause (a), there shall be provided such number of water closets, if any, as is required to increase the total number of water closets provided for the crew to the following scale:—

In ships of 500 tons and over but under 800 tons	3.
In ships of 800 tons and over but under 3,000 tons	4.
In ships of 3,000 tons and over	6.

(c) In determining the number of water closets required by this sub-rule, no account shall be taken of any water closet forming part of a permanent hospital.

(3) The water closets shall be situated close to the sleeping rooms of the persons for whom they are provided, and in particular, a water closet shall be situated close to the sleeping rooms of any radio officers in the crew if such sleeping rooms are in a position remote from other sleeping rooms.

(4) If the entrance to a water closet is from an open deck, the entrance shall, if practicable, be properly screened.

(5) If the means of entry into water closets forming part of the crew accommodation is from a passageway leading to other parts of the crew accommodation, a lobby shall be provided at the entrance of the water closet, or where a lobby is not practicable, a self-closing door. Any doors between a water closet and a passageway shall be close fitting and without apertures. The Central Government may exempt any ship from the requirement that the doors shall be close fitting and without apertures to the extent that it is satisfied that the exhaust ventilation arrangements from the water closet render compliance therewith unnecessary.

(6) Access to water closets shall not be obtained directly from a mess room or sleeping room: Provided that access to a water closet may be obtained directly from not more than two sleeping rooms together accommodating not more than four persons. If the persons so accommodated are three or four in number, the water closet pedestal shall be so screened as to ensure privacy.

(7) Every water closet shall be completely enclosed by bulkheads and shall be provided with exhaust ventilation directly to the open air or to another water closet which is provided with ventilation directly to the open air: Provided that a water closet may be separated by a partition consisting of steel or other opaque and rigid material open at top and bottom from—

- (a) another water closet,
- (b) a urinal, or
- (c) washing accommodation if the water closet is served by a trunked mechanical ventilation system which effectively removes odours therefrom.

(8) Every water closet shall be so constructed as to facilitate cleaning and not to harbour dirt or vermin.

(9) Subject to the provisions of sub-rule (10) of this rule, every water closet shall be provided with the following:—

- (a) a water closet pedestal of single type with—
 - (i) a pan of white vitreous china or other suitable material;
 - (ii) a seat of polished hardwood or other suitable material, with an opening of 4 inches at the front;
 - (iii) a trap with a metal inspection plate; and
 - (iv) an efficient ventilator connected to the out-let;
- (b) an adequate flush of water, which shall be always available and supplied through self-closing non-concussive supply valves with a portable seating in metal which is not likely to become corroded;
- (c) a soil pipe not less than 4 inches in diameter, so constructed as to facilitate cleaning and minimise the risk of obstruction; the pipe shall

have a direct overboard outfall fitted with a storm-valve, unless it is connected with a main sewage outfall by an efficient and hygienic system;

- (d) a device for holding toilet paper;
- (e) a hand rail or grip.

(10) Every water closet provided for the exclusive use of ratings may be grouped into batteries and shall be designed and equipped in a manner suited to their habits and customs, and in particular, shall be provided as follows:

- (a) Each battery of water closets may consist of any number of separate compartments contained in properly constructed steel house with a minimum height of 6' 6" from top of foot holds to the under side of beams.
- (b) The separate compartments in each battery shall be not less than 3' 9" in length by 3' 0" in width. Each such compartment shall have a separate entry fitted with a door with two shutters opening inwards which can be secured from the inside. The door need not extend to the full height of the compartment, but it shall not be less than 4' 6" in height and 2' 0" in width and the vertical height of the opening at the bottom shall not exceed 4". The divisional bulkheads between the compartments should extend to a height of within 1' 0" of the deck overhead and may also be opened at the bottom to the same extent and should be fitted with suitable hand grips. There shall be an enclosed passageway leading to the compartments of not less than 2' 6" in breadth.
- (c) Where convenient the floor of the compartment shall be raised to a height level with the top of the pan by means of a filling of cement or other similar material; or any other equivalent arrangement. If this method is adopted, the floor shall have a light declivity on all sides running down towards the pan.
- (d) Every compartment shall be properly ventilated to the satisfaction of the Surveyor by means of ventilators of such openings as will not interfere with privacy.
- (e) Adequate lighting, either natural or electric, shall be provided to the satisfaction of the Surveyor, at all times during day and night.
- (f) The pans shall preferably be made of white vitreous china or other suitable material. They shall be of an approved pattern complete with foot holds designed to prevent slipping. The orifice at the top of the pan shall be not less than 16 $\frac{1}{4}$ " in length and not less than 9" in width. The pan shall be placed as low as practicable.
- (g) An arrangement which automatically flushes the pan at intervals not exceeding 5 minutes and a continuous trickle of water.
- (h) A soil pipe such as is referred to in clause (e) of sub-rule (9) provided with a metal inspection plate and sufficient ventilation.
- (i) Each battery shall be provided with a tank to supply fresh water from the service stands for ablution purposes.

The Central Government may exempt any ship from the requirements of this sub-rule if it is satisfied that the water closets provided for the aforesaid ratings comply with the requirements of sub-rule (9) of this rule and have been properly adapted so as to be suited to their habits and customs.

(11) The provisions of this rule shall not apply to water closets forming part of a permanent hospital.

28. Galleys.—(1) Every ship to which these rules apply, shall be provided with a galley for the preparation of food for the crew, unless the circumstances are such that no members of the crew are required to mess on board.

(2) The galley shall be situated as near as may be to the mess rooms provided for the crew and any necessary equipment shall be provided to enable food to be served in the mess rooms under all weather conditions.

(3) The galley shall be situated in a position which will prevent, as far as practicable, the entry into the galley of coal dust from coal chutes or bunker hatchways.

(4) There shall be no direct opening between the galley and any sleeping room. The Central Government may exempt any ship of under 500 tons from the requirements of this sub-rule.

(5) Any galley situated on an open deck shall be provided with weather doors which are horizontally divided into halves, so that the upper half can be opened independently of the lower half, if such a division is necessary for the lighting, ventilation or privacy of the galley or for the service of food therefrom.

(6) Every galley, shall, so far as is reasonable and practicable, be lighted by natural lighting from all the sides and from overhead.

(7) Every galley shall be provided with at least three fixed points for artificial lighting, one of which shall be situated close to a cooking range required by this rule. The Central Government may exempt any ship of under 1,000 tons from the requirements of this sub-rule.

(8) If the galley is situated on an open deck, openings shall be cut in the sides and ends of the galley for ventilation purposes and shall be fitted with dust-tight shutters made of steel or other suitable material and permanently attached to the structure of the galley. The Central Government may exempt any ship from the requirements of this sub-rule if it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(9) Every galley shall be provided with exhaust fans which will draw off fumes from the cooking appliances therein and discharge the fumes into the open air. The Central Government may exempt from the requirement of this sub-rule—

(a) any ship of under 1,000 tons;

(b) any other ship, if the Central Government is satisfied that the galley is so situated that the fumes therefrom can discharge only into the open air.

(10) The floor of the galley shall be provided with gutters and with scuppers which shall be led overboard or to an enclosed tank served by a mechanically operated suction pump. The position and number of the gutters and scuppers shall be such as will ensure the efficient drainage of the floor.

(11) The cooking appliances in the galley shall be arranged in a manner which will facilitate the cleaning of the galley.

(12) All cupboards and dressers in the galley shall be made of material which is impervious to dirt and moisture and can easily be kept clean. All metal parts of the cupboards and dressers shall be rustproof. The cupboards and dressers shall be so made as not to be likely to harbour dirt or vermin. The bottoms of all, cupboards and dressers in the galley shall either be flush with the deck or shall be so fitted as to enable the deck space beneath them to be readily accessible for cleaning.

(13) Every galley shall be provided with such equipment as will enable food in sufficient quantity to be properly and readily prepared for the persons whom the galley is intended to serve, and the cooking utensils to be hygienically cleansed.

(14) Without prejudice to the generality of the last preceding sub-rule:—

(a) Every galley shall be provided with one or more cooking appliances with:—

(i) a total oven capacity, suitable for roasting and baking, of at least $\frac{1}{3}$ cubic foot, and

(ii) an area of range top-plate or boiling table, amounting to at least $\frac{1}{3}$ square foot for each person whom the galley is intended to serve. The Central Government may exempt any ship from any of the requirements of this clause in so far as they relate to cooking appliances in galleys intended to serve more than 60 persons, or to the area of any top-plate or boiling table in which electricity or heat-storage is employed, or to the area of any appliance which the Central Government is satisfied is of unusual design;

(b) Every galley shall be provided with at least the number of ovens and fire-grates specified in the following table:—

Number of persons whom the galley is intended to serve	Number of ovens	Number of fire-grates
Not more than 20	1	1
More than 20, but not more than 30	2	1
More than 30, but not more than 60	2	2
More than 60	3	2

Provided that no fire-grate shall be required in a galley fitted only with electric or gas cooking appliances. The Central Government may exempt any ship from the requirement of a second fire-grate if it is satisfied that adequate heat is readily available from one fire-grate and that adequate provision of spare parts is made for such grate and for any equipment necessary for its proper operation.

(c) The top plate of every cooking range shall be at a height which will enable it to be conveniently used by a person of normal height standing on the floor of the galley, unless a separate boiling table is provided at such a height.

The Central Government may exempt any ship from any of the requirements of this sub-rule, if it is satisfied that compliance therewith is unnecessary by reason of the voyages on which the ship is intended to be engaged or the habits and customs of the persons whom the galley is intended to serve.

(15) Salt water taps shall not be fitted over a sink in any galley or other place in which food may be prepared for the crew. Hot and cold fresh water shall be laid on to a sink in the galley for washing-up purposes. A connection shall be provided on a water pipe within the galley and shall be suitable for connection of a hose with which the floor may be scoured.

29. Dry Provision Rooms.—(1) In every ship to which these rules apply, not being a ship in which each member of the crew provides his own food, one or more store rooms shall be provided for the storage of dry provisions for the crew. Such rooms shall be fitted with sufficient shelves, cupboards and bins having regard to the maximum period likely to elapse between successive replenishments of stores and to the maximum number of persons for whom food is to be served.

(2) Every dry provision store room shall be enclosed by bulkheads constructed of steel or other suitable material.

(3) Access to every dry provision store room shall be obtained from a passageway, galley, pantry or another store room, or from a position on an open deck which, in so far as is reasonable and practicable in the circumstances, shall be a protected position.

(4) Every dry provision store room shall be so situated, constructed and ventilated as to avoid deterioration of the stores through heat, draught, condensation or infestation by insects or vermin.

(5) Without prejudice to the generality of the foregoing sub-rule, no dry provision store room shall be situated over a boiler room or any other space in which heat is generated, or shall adjoin a galley or machinery casing. The Central Government may exempt any ship from the requirements of this sub-rule if it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances, and that the dry provision store room is adequately insulated.

(6) No part of a dry provision store room shall be used for the storage of bedding or textiles.

30. Cold store rooms and Refrigerating Equipment.—(1) In every ship to which these rules apply, refrigerating equipment and cold store rooms shall be provided

and shall be, having regard to the period likely to elapse between successive replenishment of stores, adequate for the storage of perishable provisions for the crew. The Central Government may exempt any ship of under 1,000 tons from the requirements of this sub-rule if it is satisfied that the ship is provided with adequate alternative equipment for the storage of perishable provisions.

(2) Access to every cold store room shall be obtained from a passageway, galley or pantry or from another store room.

(3) Refrigerating machinery in which methyl chloride is intended to be used (whether or not intended to cool any space in the crew accommodation) shall not be situated in the crew accommodation except in a store room or in a space appropriated solely to that machinery. The store room or other space in which the machinery is situated shall be so constructed as to be gastight where it abuts upon other parts of the crew accommodation and shall be adequately ventilated by at least two ventilators to the open air, one of which shall be fitted with an exhaust fan and shall have its inlet near the bottom of the room or space. The motor of the fan and the electrical connections thereto shall be enclosed in a spark-proof case. Access to such store room or space shall, wherever practicable, be by means of a hinged door from an open deck. If the door cannot be arranged otherwise than to open on to a passageway or other space frequented by members of the crew, the door shall be spring-loaded, jointed and gastight.

(4) Every exposed pipe which may contain methyl chloride or other toxic or inflammable gas shall be adequately protected from damage.

31. Hospitals.—(1) Every ship to which these rules apply, being a ship (other than a tug) which is intended to be at sea on any occasion for a continuous period of more than 3 days with a crew of 15 or more persons, shall be provided with a space appropriated for use as a permanent hospital for the crew. The space so appropriated shall not at any time be used for any purpose other than for the treatment of sick persons. The Central Government may exempt from the requirement of this sub-rule any ship engaged only on the coasting trade of India.

(2) In every other ship to which these rules apply, a room shall be appropriated for use, when necessary, as a temporary hospital. When such room is in use as a hospital it shall not be used for any purpose other than the treatment of sick persons. The Central Government may exempt any ship from the requirements of this sub-rule if it is satisfied that compliance therewith is unnecessary in the circumstances.

(3) Every hospital, whether permanent or temporary, shall be situated in a position which will ensure the greatest possible quiet and comfort for the patients. The hospital shall be readily accessible, and, in case of a ship not carrying a duly qualified medical practitioner or duly qualified nurse exclusively so employed as a member of the crew, shall be so situated as to be easily accessible from the sleeping accommodation of the Master of the ship or of a person appointed by the Master to take charge of the patients. The hospital shall be so situated as to facilitate the proper treatment of patients in all weathers.

(4) The minimum width of the entrance to every permanent hospital shall be 30 inches or as near thereto as is practicable in the circumstances. The hospital shall be so arranged that a stretcher can easily be carried into the hospital and placed alongside at least one single-tier bed therein.

(5) The floor-covering in every permanent hospital shall, as far as is practicable, be free from joints.

(6) Every permanent hospital shall include a hospital ward fitted on at least two sides with side scuttles at least 12 inches in diameter. The side scuttles shall be capable of being opened. Provided that, if it is not practicable to fit a side scuttle on two sides of the hospital ward, a sky-light, capable of being opened and of as large a size as is practicable, may be substituted for a side scuttle on one side of the ward. All side scuttles in the hospital, and any sky-light therein which is exposed to the direct rays of the sun, shall be provided with curtains, blinds or jalousies. The Central Government may exempt from the requirements of this sub-rule:—

(a) any ship of under 1,000 tons;

(b) any other ship, if it is satisfied that the permanent hospital therein is fully airconditioned or served by a trunked mechanical ventilation system.

(7) In addition to any mechanical ventilation required by rule 12, every permanent hospital shall be provided with adequate natural supply and exhaust ventilation to the open air by means of ventilators independent of the ventilators provided for any other space in the ship. The Central Government may exempt any ship from the requirement of this sub-rule if it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(8) Every permanent hospital shall be provided with an electric fan, unless it is served by a trunked mechanical ventilation system.

(9) Any radiators in a permanent hospital shall be installed as far as is practicable from the heads of beds.

(10) In addition to the lighting required by rule 11 every permanent hospital shall be provided with a portable electric lamp and with accessories as are necessary.

(11) In every ship which is required by this rule to be provided with a permanent hospital, at least one bed shall be provided in a hospital ward for every 50, or fraction of 50, members of the crew. The Central Government may exempt from the requirement of this sub-rule any ship carrying more than 300 persons, to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(12) At least one single-tier bed shall be provided in a ward in every permanent hospital. The bed shall, if practicable, be so arranged as to be accessible from both sides and from the foot. If any beds in the ward are arranged in double tiers, the upper tier shall be hinged or removable. Subject to the foregoing provisions of this sub-rule, the provision of sub-rules (2) to (9) (a) both inclusive and sub-rule (10) of rule 17 shall apply to hospital beds as they apply to beds in a sleeping room.

(13) In every ward in a permanent hospital one of each of the following items of equipment shall be provided for each bed in the hospital ward and shall be within reach of that bed:—

- (a) a locker approximately 1 foot square by 2 feet high, and fitted with a flat top and a shelf;
- (b) a water bottle; and
- (c) a tumbler.

(14) In every ward in a permanent hospital, the following items of equipment shall be provided:—

- (a) seats adequate in number, having regard to the number of beds in the ward;
- (b) a clothes locker additional to that required by sub-rule (13) and complying with the specifications set forth in clause (a) (ii) of sub-rule (1) of rule 18;
- (c) a box cover which will conceal a bed-pan; and
- (d) electric bell-pushes so arranged as to be within reach of each bed and communicating with the sleeping room of a person in charge of the patients.

(15) A wash-basin having a capacity of at least 1½ gallons shall be fitted in every permanent hospital. In ships of 5,000 tons or over a bath at least 4 feet 5 inches in internal length shall be fitted in washing accommodation forming part of the hospital and adjacent to the hospital ward. The wash-basin and bath shall be made of or coated with hygienic and durable material having a smooth and impervious surface not likely to crack, flake or become corroded. They shall be fitted with an efficient and hygienic discharge system separate, if practicable, from any other discharge system in the ship and in particular the waste pipes shall be fitted in a manner which will facilitate cleaning. A scupper of at least 2 inches in diameter shall be fitted in the lowest part of any room (other than a ward) which contains such wash-basin or bath. The Central Government may exempt any ship from the requirement of a bath in the permanent hospital, if it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(16) (a) A water closet pedestal shall be fitted as part of every permanent hospital.

(b) The water closet pedestal shall be fitted either in a water closet or in washing accommodation forming part of the hospital.

(c) Access to the water closet pedestal (or washing accommodation, as the case may be) shall be obtained directly from the hospital ward or from a lobby forming part of the hospital. The Central Government may exempt any ship from the requirement of this clause if it is satisfied that compliance therewith is impracticable in the circumstances, and that the water closet forming part of the hospital is situated sufficiently near to the ward.

(d) The room in which the water closet pedestal is installed shall be provided with a gastight self-closing door unless it is served by a mechanical system of exhaust ventilation, and shall be so constructed as to facilitate cleaning and not to harbour dirt or vermin.

(e) Such room shall be ventilated in the manner specified in sub-rule (7) of rule 27 and shall comply with the requirements of sub-rule (9) or (10) of the said rule, whichever shall be applicable in the circumstances.

(17) The Central Government may exempt any ship of under 500 tons from any of the requirements of this rule.

32. Medical Cabinet.—(1) In every ship to which these rules apply, a medical cabinet shall be provided in a position adjacent to the permanent hospital, if any, required by rule 31 or near to the sleeping room of the person in charge of sick persons on board. The medical cabinet shall be fitted in a position in which it will remain dry and which is remote from all sources of heat.

(2) The medical cabinet shall be of a size, design and construction suitable for storing the medicines, medical stores and book of instructions provided in the ship for the benefit of the seamen on board. In particular, the medical cabinet shall be provided with the following:—

- (a) an outer door fitted with an efficient lock;
- (b) an inner cupboard fitted with a door and a lock which shall be incapable of being opened by the key to the lock referred to in clause (a) of this sub-rule; such inner cupboard shall be used solely for the storage of poisonous drugs;
- (c) shelves so constructed as to facilitate the identification of medicines stored thereon;
- (d) a dispensing counter or dispensing table: in either case, with a surface which can easily be kept clean;
- (e) at least two drawers suitable for the storage of medical stores and used solely for that purpose;
- (f) fittings which will enable hot water bottles to be carried in a hanging position;
- (g) a rack suitable for holding devices for measuring medicines;
- (h) a book containing readily understandable instructions for the use of medicines and medical stores provided for the crew, unless the ship carries a duly qualified medical practitioner as a member of the crew.

The Central Government may exempt any ship from the requirements of this sub-rule to the extent that it is satisfied that compliance therewith is impracticable, having regard to the size or intended service of the ship.

(3) The medical cabinet shall be lighted by an electric light which shall be inside or immediately outside the cabinet and which will enable all the contents of the cabinet to be clearly seen in the absence of light from any other source.

(4) The medical cabinet and the place in which it is fitted shall be so ventilated as to avoid deterioration of the contents of the cabinet.

(5) The Central Government may exempt from any of the requirements of this rule any ship of under 500 tons being a ship engaged only on the coasting trade of India, if it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

33. Protection from Mosquitoes.—(1) In every ship to which these rules apply, being a ship regularly engaged on voyages to any port to which this rule relates, the crew accommodation, other than galleys, store rooms and recreation spaces on the open deck shall be provided with protection against the admission of mosquitoes. Such protection shall be provided by means of screens of rust-proof wire or other suitable material which shall be fitted to all side scuttles, natural ventilators, skylights and doors leading to the open deck.

(2) Any door to which such screens are fitted, being a door at the entrance to a permanent or temporary hospital in a ship to which these rules apply, shall be of a self-closing type.

(3) The ports to which this rule relates are the following:—

(a) Ports between 20° North latitude and 20° South latitude on the coasts of—

(i) Africa, excluding Port Sudan and Massawa;

(ii) Asia, including the East Indian Archipelago and the Philippine Islands, but excluding Aden, Bombay, Madras, Vizagapatam, Colombo, Trincomalee, Singapore, Penang and Port Swettenham;

(iii) New Guinea, New Britain, New Ireland, New Hebrides and the Solomon islands.

(b) Ports on the coasts of Madagascar.

34. Maintenance and Inspection of Crew Accommodation.—(1) The crew accommodation in every ship to which these rules apply, shall be maintained in a clean and habitable condition and all equipment and installations required by these rules shall be maintained in good working order. Every part of the crew accommodation (not being a store room) shall be kept free of stores and other property not belonging to or provided for the use of persons for whom that part of the accommodation is appropriated, and in particular, no cargo shall be kept in any part of the crew accommodation.

(2) The Master of the ship or an officer appointed by him for the purpose shall inspect every part of the crew accommodation at least once in every ten days and shall be accompanied on the inspection by one or more members of the crew. The Master of the ship shall cause to be entered in a book specially kept for the purpose a record of:—

(a) the time and date of the inspection;

(b) the names and ranks of the persons making the inspection;

(c) particulars of any respects in which the crew accommodation or any part thereof was found by any of the persons making the inspection not to comply with these rules.

35. Inspection by a Surveyor.—The crew accommodation in every ship to which these rules apply shall be inspected by a surveyor whenever:—

(a) the ship is registered or re-registered, in India;

(b) any part of the crew accommodation in the ship undergoes substantial alterations or repairs;

(c) the number of persons accommodated in any sleeping room is increased above that marked in accordance with sub-rule (1) of rule 15;

(d) in the opinion of a surveyor, there is reason to believe (whether or not in consequence of a complaint) that any of the provisions of these rules has been contravened in respect of that ship, or that any condition subject to which the Central Government has exempted the ship from a requirement of these rules has not been satisfied;

(e) a request for an inspection of the crew accommodation has been made to the Central Government or to a competent authority by or on behalf of the owner of the ship or of any organisation which appears to the Central Government to be most representative of the owners of Indian ships or of the seamen concerned; or

(f) a complaint has been lodged with an officer duly authorised under section 176 of the Act and complies with the following requirements:—

(i) the complaint shall be in writing, signed by the Master or three or more members of the crew;

(ii) the complaint shall specify the respects in which it is alleged that the crew accommodation in the ship does not comply with these rules;

- (iii) the complaint shall be lodged without undue delay;
- (iv) the complaint shall be lodged at least 24 hours before the ship is due to sail, unless the ship is in port for less than 24 hours.

36. Fees.—The fees for inspection of crew accommodation shall be:—

For each visit to the ship	Rs. 32/-
Maximum fee	Rs. 128/-

Provided that no fee shall be payable in respect of an inspection made:—

- (a) when the ship is registered, re-registered or re-measured; or
- (b) in pursuance of clause (f) of rule 35, if the Central Government is satisfied that the inspection was made in consequence of an unjustified complaint.

37. Accommodation shared with Passengers.—(1) No accommodation provided in compliance with these rules shall be used, or appropriated for use, by passengers. No gallery or store room provided in compliance with these rules shall be used, or appropriated for use, for the preparation or storage of food for passengers.

(2) The Central Government may exempt any ship from the requirements of these rules, not being requirements relating to sleeping rooms, or office accommodation, to the extent that it is satisfied that accommodation equal or superior in standard to the accommodation required by these rules is available for the use or service of the crew in common with passengers.

38. Additional Exemptions.—(1) The Central Government may exempt:—

- (a) any ship while under construction;
- (b) any ship while undergoing trials;
- (c) any tug;
- (d) any other ship to which these rules apply;

from the requirements of these rules to the extent it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(2) The Central Government may, after consultation with such organisation or organisations in India as it may consider to be most representative of the employers of seamen and of seamen exempt any ship from any of the requirements of these rules if it is satisfied that corresponding advantages are provided in the ship so that the crew accommodation, considered as a whole, is equivalent or superior in standard to that required by these rules.

FIRST SCHEDULE

[See rules 2(1)(m) and 12(3)]

Trunked Mechanical Ventilation System

1. The trunked mechanical ventilation system referred to in clause (m) of sub-rule (1) of rule 2 and sub-rule (3) of rule 12 of these rules (in this Schedule referred to as "the system") shall in relation to the spaces specified in the second column of Table I annexed hereto, be capable of the respective standards of performance, specified in the third or fourth column of that Table, whichever standard shall be the higher in the circumstances. Provided that nothing in Table I shall be taken to relate to a space specified in the second column of Table II annexed hereto.

2. The system shall in relation to the spaces specified in the second column of Table II, be capable of the respective standards of performance specified in the third and fourth columns of that Table.

3. If any store room is served by a fan which provides warmed air for any other spaces, the store room shall be provided with ventilation trunking separate from that serving such other space.

4. The clear area of the exhaust openings provided in conjunction with the system shall be sufficient to ensure that the velocity of air at each exhaust opening does not exceed 1,000 feet per minute when the system is in operation.

5. The speed of every supply fan forming part of the system shall be capable of being varied.
6. The system shall be quiet in operation.
7. All trunking forming part of the system shall be provided with non-return flaps where such flaps are necessary for the exclusion of effluvia and the preservation of the health of the crew.
8. If the system is designed to circulate heated air as the sole means of heating the crew accommodation, the system shall be sub-divided into sections which can be separately controlled to the extent necessary to enable a comfortable temperature to be maintained in all parts of the crew accommodation.

TABLE I

Category	Space	Fresh air	Volume of fresh air,
		changes per hour	in cubic feet per minute, for each person likely to use the room at any one time
I	2	3	4
A	Rooms (other than rooms in category C) in deck houses above the upper or shelter deck :—		
	(1) outside rooms (other than rooms adjoining machinery casing) . . .	10	50
	(2) inside rooms and rooms adjoining machinery casing . . .	15	50
B	Rooms (other than rooms in category C) in side-to-side superstructures above the upper or shelter deck:—		
	(1) outside rooms (other than rooms adjoining machinery casing) . . .	12	50
	(2) inside rooms and rooms adjoining machinery casing . . .	15	50
C	Mess rooms, smoking rooms and recreation rooms (in each case above the upper or shelter deck):—		
	(1) not adjoining machinery casing . . .	15	25(a)
	(2) adjoining machinery casing . . .	18	25(a)
D	Passageways adjoining machinery casings	4	
E	Rooms in tween decks (including shelter tween decks) of ships propelled by internal combustion machinery :—		
	(1) Rooms clear of machinery casing . . .	12	50
	(2) Rooms abreast of but not adjoining machinery casing . . .	12	50
	(3) Rooms adjoining machinery casing (other than mess rooms, smoking rooms and recreation rooms) . .	15	60
	(4) Mess rooms, smoking, rooms and recreation rooms (in each case adjoining machinery casing) . .	18	25

	1	2	3	4
F	Rooms in 'tween decks (including shelter 'tween decks) of steamships —			
(1)	Rooms clear of machinery casing .	12	50	
(2)	Rooms abreast of, but not adjoining machinery casing . . .	15	60	
(3)	Rooms immediately above machinery casing or abreast of and adjoining machinery casing (other than mess rooms, smoking rooms and recreation rooms)	18	60	
(4)	Mess rooms, smoking rooms and recreation rooms (in each case adjoining machinery casing)	20	30(b)	

- (a) Whatever the number of persons likely to use the room at one time, the total volume of fresh air per minute shall not be required to be such as would result in more than 20 fresh air changes per hour
- (b) Whatever the number of persons likely to use the room at any one time, the total volume of fresh air per minute shall not be required to be such as would result in more than 25 fresh air changes per hour

TABLE II

Category	Space	Fresh air changes per hour	
		Supply	Exhaust
1	2	3	4
G	Galleys	. 20 (c) (d)	40(d)
H	Sanitary accommodation, drying rooms and pantries .	10	
J	Wards in permanent hospitals	12 or such greater number as would result in the supply of not less than 50 cubic feet of fresh air per minute for each bed in the room.	
K	Dry provision store rooms .	Not less than 10(e) and not more than 20	
	(c) 15, if at least two sides of the galley are exposed to the weather		
	(d) The Central Government may exempt any ship from these requirements to the extent that it is satisfied that compliance therewith is unnecessary by reason of the insulation of the equipment in the galley, or by reason of the size of the galley		
	(e) Subject to the provision of rule 29(4)		

SECOND SCHEDULE

[See rules 7(2) and 8(3)]

Deck Sheathings

1. The material referred to in sub-rule (2) of rule 7 and sub-rule (3) of rule 8 of these rules (in this Schedule referred to as 'the material') shall comply with the following requirements:—

(a) **Foothold.**

The material, whether wet or dry, shall provide a good foothold.

(b) **Thermal Insulation.**

(i) If the material covers a deck exposed to the weather it shall provide thermal insulation not less than that provided by a wooden deck $2\frac{1}{4}$ inches thick.

(ii) if the material covers any other deck, it shall provide a warm and comfortable surface.

(c) **Fire Resistance.**

The material shall be such as will not readily ignite in the position in which it is laid.

(d) **Water Absorption.**

The material shall be such that, after being immersed in water for a period of 48 hours the moisture content of the material will not exceed 7 per cent. of its dry weight. The Central Government may exempt any ship from the requirement of this sub-paragraph.

(e) **Adhesion.**

The material shall be so laid as to adhere closely under all conditions of service to the surface on which it is laid.

(f) **Non-Corrosion.**

The material shall not contain any substance which may cause corrosion of the deck on which it is laid, unless the deck is effectively protected from corrosion by a coating applied for that purpose.

(g) **Danger to Persons.**

The material shall be such as will not produce any injurious effect upon persons who may come in contact with it.

(h) **Resistance to Wear and Weather.**

The material shall be sufficiently hard and strong to withstand all conditions of service and shall be sufficiently flexible to prevent cracking under those conditions.

2. If the material is laid in a permanent hospital it shall be material not likely to be damaged by surgical spirit or other liquids which may be used in the hospital.

3. If the material is laid on the crown of an oil fuel tank, the material shall be such that if it is immersed in fuel oil for a period of 24 hours at a temperature of 150°F . the weight of the material will not increase by more than 1 per cent and the material will not be penetrated by the oil.

THIRD SCHEDULE

[See rule 7(2)]

Insulating Material for the Underside of Decks

The insulating material referred to in sub-rule (2) of rule 7 of these rules (in this Schedule referred to as "the material") shall comply with the following requirements:—

(a) **Thermal Insulation.**

The material shall provide thermal insulation not less than that provided by a wooden deck $2\frac{1}{4}$ inches thick.

(b) Fire Resistance.

The material shall be such as will not readily ignite in the position in which it is laid.

(c) Adhesion.

The material shall be so laid as to adhere closely under all conditions of service to the deck under which it is laid.

(d) Non-corrosion.

The material shall not contain any substance which may cause corrosion of the deck under which it is laid, unless the deck is effectively protected from corrosion by a coating applied for that purpose.

FOURTH SCHEDULE

[See rule 15]

Marking

PART I

Markings for Sleeping Rooms

Certified for (*) seamen.

PART II

Markings for Spaces other than Sleeping Rooms

Certified for Chief Officer (†).

Certified for Officer.

Certified for Petty Officer.

Certified for Apprentices.

Certified for Crew.

(*) There shall here be inserted the maximum number of seamen who may be accommodated in the room in accordance with these rules.

(†) In the case of a room intended for the sole use of any other officer the rank of that officer shall here be substituted.

[No. 30-M.L. (17)/60.]

NAGENDRA SINGH, Joint Secy.

